

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Brown
Appl. No: 10/797,901
File Date: March 10, 2004
Customer No.: 02101
Invention: **Motor With Raised Rotor**

Art Unit: 2834
Examiner: Lam, Thanh
Docket No.: 917/198
Confirmation: 3383

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P.O. Box 1450
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Dear Sir:

Following a Final Office Action dated December 11, 2007, Applicants submit the present Request for Formal Review, by a panel of examiners, of the legal and factual basis of the rejections pending in the present case, in accordance with the Pre-Appeal Brief Conference Pilot Program¹. Applicants believe that the issues presented are well-posed for appeal, and request formal review prior to appeal on the following grounds:

I. Background Synopsis of Subject Matter

The present application relates to a motor having a stator, a rotor with a shaft, and a moveable support member. The moveable support member is also moveable relative to the shaft.

II. Synopsis of Status of the Case

Claims 1-25 are pending in the application. In the Final Office Action of May 17, 2007, Claims 1-4, and 6-25 were rejected under 35 U.S.C. 102(b) as being anticipated by Leuthold et al., U.S. Patent No. 5,710,678. Additionally, claims 1, 5, and 12 were rejected under 35 U.S.C. 102(b) as being anticipated by Slack et al., UK Patent No. GB 2083953A.

A response to the Final Office Action dated May 17, 2007 and Request for Continued Examination were filed on September 13, 2007 in which the Applicants explained that the Leuthold and Slack references do not teach or suggest the moveable support member required by the present invention. Specifically, Applicants argued that the Leuthold reference teaches a support member that is affixed to the shaft and therefore is not moveable relative to the shaft. Additionally, Applicants argued that the Slack reference teaches a support member that is press-fit into a recess and, therefore, is stationary and fails to move relative to the shaft.

Applicants received an additional Final Office Action dated December 11, 2007 in which the Examiner disagreed with Applicants arguments and maintained the rejections based on the Leuthold and Slack references. The appeal, noticed concurrently herewith, is with respect to rejected claims 1-25.

III. Issues for Review Prior to Appeal

1. A *prima facie* anticipation rejection is improper when claim limitations are not found in the cited prior art reference(s).

It is well settled that a claim is invalid as anticipated under 35 U.S.C. § 102 only if a single prior art reference discloses either expressly or inherently, each limitation of the claim. *In re Cruciferous Sprout Litigation*, 301 F.3d 1343, 64 U.S.P.Q. 2d 1202 (Fed. Cir. 2002). Neither Leuthold nor Slack disclose each and every limitation of the present claims.

Claim 1 is directed to a motor having a stator, a rotor with a shaft, a sleeve bearing, and a moveable support member. The sleeve bearing is in contact with the rotor shaft and is fixedly secured to the stator. The moveable support member axially supports and is moveable relative to the shaft. In a manner similar to Claim 1, independent claims 12 and 20 are also directed to a motor having either a moveable support member (claim 12) or a moveable support means (claim 20) that are moveable relative to the shaft.

¹ Official Gazette of the United States Patent and Trademark Office, vol. 1296, Number 2, (July 12, 2005).

As is known in the art, the term “relative movement” describes movement that is with respect to or as compared to another object. Perhaps the best way to further describe “relative movement” and “relative motion” is by way of example. In particular, take the example of two cars driving along a road. If the cars are moving in different directions, they are moving relative to one another – the driver of one of the cars will observe the movement of the other car with respect to her (e.g., the relative movement). Similarly, a first car passing a second, slower car is moving relative to the slower car (and vice versa) – the driver of the slower car will observe the movement of the faster car with respect to her. Conversely, if the cars are moving at the same rate and the same direction, the driver of one car will not notice any movement with respect to her – there is not relative movement. In other words, the relative movement is essentially the difference in movement between the cars (e.g., the difference in speed or direction of the cars). In the present case, as described above, the claims define a support member that moves relative to a shaft. Therefore, there must be some difference in movement between the support member and the shaft (e.g., it must be moving at a different rate or rotating in a different direction).

Leuthold does not disclose such a motor. Rather, Leuthold is directed towards a motor having a support member that rotates and moves with the shaft. In particular, Leuthold explicitly states that the support member is fixed to the end of the shaft (see Col. 8, lines 12-13, lines 44-46) via a retaining ring. Therefore, the support member is not free to move or rotate on its own and is forced to move *with* the shaft (i.e., the support member moves at the same rate and in the same direction as the shaft). Because the support member is moving with the shaft (e.g., in the same direction and at the same rate like the final car example provided above), there is no difference in movement and it cannot be considered to move *relative* to the shaft, as required by the pending claims.

In the Final Office Action dated December 11, 2007, the Examiner argues that the term “relative movement” only requires that the movement have some relationship with the movement of the shaft. The Examiner also adds that the term “relative movement” does not require that the support member move differently or at the same rate with respect to the shaft. However, this is in direct contrast to the definition of the term “relative movement.” As described above, in order for an object to move relative to

another object, it must be moving at a different rate or in a different direction. Therefore, even though the movement of Leuthold's shaft and support member may be *related* (e.g., movement of the shaft causes movement of the support member), they are not moveable relative to one another, as required by the pending claims.

Slack also fails to teach all of the elements of the claimed motor. However, unlike the support member in Leuthold, Slack's support member is not fixed to the shaft. Rather, Slack's support member is press-fit into a recess located in a thrust plate (page 2, left column, lines 20-36). As known in the art, the term "press-fit" describes a method of fastening two parts by creating friction between the parts as they are pushed together. The resulting compressive and tensile forces between the parts (i.e., the support member and the thrust plate) hold the parts together. In other words, Slack's support member is unable to move or rotate within the recess in the thrust plate because of the tensile and compressive forces. Therefore, as Slack's shaft begins to rotate, no rotational nor lateral movement will be transferred to the support member (e.g., it will remain stationary). Accordingly, there is no relative movement between Slack's support member and shaft, as required by the pending claims.

In the Final Office Action dated December 11, 2007, the Examiner suggests that the support member moves relative to the shaft because Slack has a "resilient" washer contained between the thrust plate and an end cover secured to the body (see page 2, left column, lines 82-88). Although Applicants agree that Slack describes such a washer, Applicants would like to point out that the presence of the washer does not allow for relative movement between the support member and the shaft. Rather, as described in Slack, the support member (i.e., the ball) is "caused to bear against the shaft" by the resilient washer. In other words, the resilient washer essentially ensures that the support member maintains contact with the shaft at all times, and any axial movement by the shaft is directly translated to the support member. Additionally, because the washer is resilient, the thrust plate (and thus the support member) will move *with* the shaft – if the shaft moves axially downward, the thrust plate will move downward; if the shaft moves axially upward, the thrust plate will move upward such that the support member maintains contact with the shaft. Therefore, the "resilient" washer relied upon by the Examiner does not allow for relative movement, as required by the present claims.

IV. Conclusion

The Leuthold and Slack references do not disclose a support member that moves relative to the shaft. Thus, it is respectfully submitted that a *prima facie* case of anticipation cannot be properly made or sustained based the references relied upon by the Examiner. Applicants therefore submit that claims 1-25 are patentable over Leuthold and Slack. Allowance of claims 1-25 is respectfully requested.

Respectfully submitted,

/Jonathan C. Lovely, #60,821/

Jonathan C. Lovely
Registration No. 60,821
Attorney for Applicants

Bromberg & Sunstein LLP
125 Summer Street
Boston, MA 02110-1618
(617) 443-9292

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